Manitoba
Agriculture

Guidelines for Estimating

GROWER & FINISHER PIG PRODUCTION COSTS

Based on Finishing 1100 Market Hogs

Information Update

DATE: January, 1988

This publication is intended to provide a format and a set of guidelines for determining costs of production for a hog enterprise. The cost figures listed in this budget are estimates and not figures obtained from an actual survey of the hog industry in Manitoba. Adjustments will be necessary when applying these figures to your own enterprise. The assumptions on which the costs are based are outlined in the supporting pages. These assumptions were arrived at using the breeding stock, management practices, and facilities commonly employed on this size of an enterprise in Manitoba. Productivity and performance assumptions are based on data from national and provincial herd recording programs as well as data collected from numerous herds by feed companies and other organizations. Adjustments will be necessary where individual herd productivity and performance levels differ from those listed.

Accurate, up-to-date, production and financial records are essential for the effective application of these guidelines to an individual operation. Without such information accurate cost of production projections cannot be determined.

GROWER AND FINISHER PIG PRODUCTION COSTS
(1200 Pigs/Year)

A. OPERATING COSTS	$/Pig Sold	Your Cost	$/Pig Place	Your Cost
1. Feed Costs:				
1.01 Grower Ration	$ 13.23		$ 31.55	
1.02 Finisher Ration	31.10		74.17	
Total Feed Cost	$ 44.33		$105.72	
2. Other Operating Costs:				
2.01 Weanling Cost	$ 57.12		$136.20	
2.02 Veterinary Cost	1.33		3.17	
2.03 Maintenance & Repairs	0.86		2.06	
2.04 Hydro (Heat)	1.01		2.40	
2.05 Insurance	0.87		2.07	
2.06 Manure Haulage	0.98		2.34	
2.07 Office Supplies	0.13		0.30	
2.08 Marketing & Transportation	2.25		5.37	
Subtotal Operating Costs	$108.88		$259.63	
2.09 Interest on Operating Cost	2.50		5.97	
TOTAL OPERATING COSTS	$111.38		$265.60	
B. FIXED COSTS				
3. Depreciation:				
3.01 Buildings	$ 2.46		$ 5.86	
3.02 Equipment	3.73		8.89	
Total Depreciation Cost	$ 6.19		$ 14.75	
4. Investment:				
4.01 Buildings	$ 1.96		$ 4.69	
4.02 Equipment	1.49		3.56	
4.03 Herd	1.50		3.58	
Total Investment Cost	$ 4.95		$ 11.83	
TOTAL FIXED COSTS	$ 11.14		$ 26.58	
C. LABOUR				
13.6 hours/wk. @ $10.00 /hour	$ 6.34		$ 15.11	
TOTAL COST OF PRODUCTION	$128.86		$307.29	
BREAK-EVEN PRICE (¢/kg carcass)	163.11			
($/lb carcass)	$ 0.74			

ASSUMPTIONS

GROWER & FINISHER PIG PRODUCTION COSTS - JANUARY 1988

1. This Budget outlines the cost of production for an 1,200 pig grower and finisher operation with herd performance levels listed below.
2. Buildings and Equipment are valued at new cost.
3. All feed is purchased.
4. Manure Haulage is contracted out.
5. Livestock values are based on
   a Market Price for Pork of: 165.00 ¢/kg
   or: $0.75/lb

INDICATORS OF PIG PRODUCTIVITY

	Grower	Finisher	Total
Total Number of Pigs Purchased	1,187	--	--
Average Beginning Weight (kg)	18.0	45.0	--
Average Ending Weight (kg)	45.0	100.0	--
Total Number of Pig Places (1)	--	--	468
Average Inventory of Pigs	--	--	455
Percent Mortality	--	--	6.0
Days on Feed	--	--	140
Feed Conversion Ration (feed/gain)	2.80	3.90	3.54
Weight Gain/Pig (kg)	27.0	55.0	82.0
Average Daily Gain (kg)	--	--	0.59
Feed Intake/Pig (kg)	75.6	214.5	290.10

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(1) Definition: Pig Places are the equivalent of barn capacity. This is the maximum number of pigs the barn is designed to hold.

PRODUCTIVITY PROFILE	Total
Pigs Purchased	1,187
Pigs Died	71
Pigs Sold	1,116
Potential Throughput	1,220
Percent Utilization of Barn	97.2
Turnover	2.61

CAPITAL COSTS - GROWER AND FINISHER BARN (1200 Pigs/Year)

	ft^2	Your Farm	$/ft^2$	Your Farm	TOTAL	Your Farm	/Pig Place	Your Farm
Buildings								
Finishing Barn	4,160	_____	$12.00	_____	$ 49,920.00	_____	$ 106.67	_____
Office & Loading	288	_____	17.00	_____	4,896.00	_____	10.46	_____
Total Building Cost					$ 54,816.00	_____	$ 117.13	_____
Equipment								
Finishing Barn			$10.00	_____	41,600.00	_____	88.89	_____
Total Equipment Cost					$ 41,600.00	_____	$ 88.89	_____
Total Buildings and Equipment Cost					$ 96,416.00	_____	$ 206.02	_____
Livestock (2)					$ 41,871.38	_____	$ 89.47	_____
TOTAL CAPITAL INVESTMENT					$138,287.38	_____	$ 295.49	_____

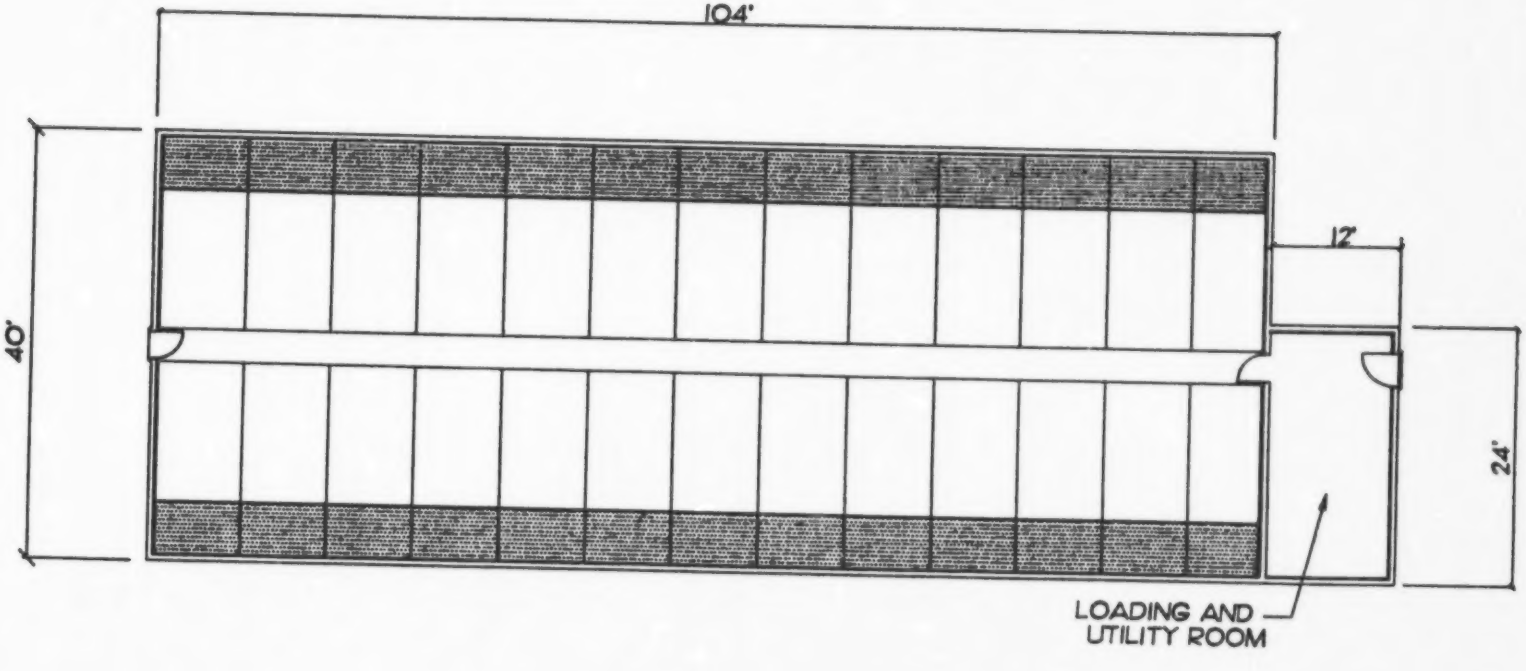
METRIC CONVERSION	m^2		$/m^2$	
Buildings				
Finishing Barn	386.5	_____	$129.17	_____
Office/Loading	26.8	_____	182.99	_____
Equipment				
Finishing Barn			$107.64	_____

*FOOTNOTE: 1 ft^2 = 0.0929 m^2 1 m^2 = 10.764 ft^2 1 ft = 0.3048 m

(2) Total Livestock Value = $\frac{\text{(Weaner pig price + Value of Carcass)}}{2}$ X Average Inventory of Pigs

Where: Value of Carcass = $\frac{\text{Finisher Ending Weight X 0.79 X Market Price (¢/kg)}}{100}$

GROWER & FINISHER PIG BARN (1200 Pigs/Year, 468 pig places)



FLOOR PLAN

WORKSHEET

GROWER & FINISHER PIG PRODUCTION COSTS - JANUARY 1988

A. OPERATING COSTS

1. Feed Requirements and Costs:

1.01 Grower Ration

			Your Farm
	27.0	kg weight gain/pig	
X	2.80	Feed Conversion Ratio	
=	75.6	kg ration/pig	
X	$175.00	/tonne ration	
÷	1,000	kg/tonne	
=	$13.23	/pig sold	

1.02 Finisher Ration

	55.0	kg weight gain/pig	
X	3.90	Feed Conversion Ratio	
=	214.5	kg ration/pig	
X	$145.00	/tonne ration	
÷	1,000	kg/tonne	
=	$31.10	/pig sold	

2. Other Operating Costs

2.01 Weanling Cost

	$53.70	/pig purchased(3)	
X	1,187	pigs purchased	
÷	1,116	pigs sold	
=	$57.12	/pig sold	

2.02 Veterinary Cost

	$1.25	/pig purchased	
X	1,187	pigs purchased	
÷	1,116	pigs sold	
=	$1.33	/pig sold	

(3) To estimate the cost of production for a Farrow to Finish operation, use the "Total Cost of Production per Pig Sold" which is given in the Manitoba Agriculture publication entitled "Estimating the Cost of Weaner Pig Production".

2.03 Maintenance & Repairs		Your Farm
	1.00 % of Total Capital Investment	
÷	100	
X	$96,416.00 Total Buildings & Equip. Cost	
÷	1,116 pigs sold	
=	$0.86 /pig sold	

2.04 Hydro (Heat)		
	60 kilowatt hours/pig place	
X	$0.0400 /kilowatt hour	
X	468 pig places	
÷	1,116 pigs sold	
=	$1.01 /pig sold	

2.05 Insurance		
	$0.70 per $100 Capital Invested	
X	$138,287.38 Capital Invested	
÷	100	
÷	1,116 pigs sold	
=	$0.87 /pig sold	

2.06 Manure Haulage		
	6.0 litres/pig/day	
X	365 day/year	
X	455 average inventory of pigs	
=	996,450 litres/year	
÷	1,000 litres/cubic metre	
=	996.45 cubic metres/year	
X	1.10 / cubic metre	
=	$1,096.10 manure haulage cost	
÷	1,116 pigs sold	
=	$0.98 /pig sold	

2.07 Office Supplies		
	$0.30 /pig place	
X	468 pig places	
÷	1,116 pigs sold	
=	$0.13 /pig sold	

2.08 Marketing & Transportation		
	$2.25 /pig sold	

2.09 Interest on Operating Cost

$$\frac{\text{Subtotal Operating Cost}}{\text{Turnover}} \times \frac{\text{Operating Interest Rate}}{2}$$

Where: $\text{Turnover} = \frac{365 \text{ days}}{\text{Length of Production Period (days)}}$

			Your Farm
Subtotal Operating Cost		$108.88 /pig sold	
Operating Interest Rate	X	12.00 %	
	÷	100	
Turnover (Days on Feed = 140)	÷	2.61	
	÷	2	
		$2.50 /pig sold	

B. FIXED COSTS

3. Depreciation: $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

			Your Farm
Total Building Cost		$54,816.00	
Total Salvage Value	-	$0.00	
	=	$54,816.00	
Useful Life (years)	÷	20	
Pigs Sold	÷	1,116	
		$2.46 /pig sold	

3.02 Equipment

			Your Farm
Total Equipment Cost		$41,600.00	
Salvage Value	-	$0.00	
	=	$41,600.00	
Useful Life	÷	10	
Pigs Sold	÷	1,116	
		$3.73 /pig sold	

4. Investment: $\frac{\text{(Original Cost + Salvage Value)}}{2} \times \text{Investment Rate}$

4.01 Buildings

			Your Farm
Total Building Cost		$54,816.00	
Salvage Value	+	$0.00	
	=	$54,816.00	
	÷	2	
Investment Rate	X	8.00 %	
	÷	100	
Pigs Sold	÷	1,116	
		$1.96 /pig sold	

4.02 Equipment			Your Farm
Total Equipment Cost		$41,600.00	
Salvage Value	+	$0.00	
	=	$41,600.00	
	÷	2	
Investment Rate	X	8.00 %	
	÷	100	
Pigs Sold	÷	1,116	
		$1.49 /pig sold	

4.03 Livestock			
Total Livestock Cost		$41,871.38	
(No Salvage Value)	+	$0.00	
	=	$41,871.38	
	÷	2	
Investment Rate	X	8.00 %	
	÷	100	
Pigs Sold	÷	1,116	
		$1.50 /pig sold	

C. LABOUR

Annual Labour Hours = 1 Hours/Day + 2 Hours/Day per 1,000 Pig Places

1 Hour/Day	=	365 Hours/Year	
plus:			
468 pig places			
X 2 hours/day/1,000 pig places			
X 365 day/year			
÷ 1,000 pig places			
342 hours/year	+	342 hours/year	
Total Hours/Year	=	707 hours/year	
	(or =)	13.6 hours/week	
Hourly Wage	X	$10.00 /hour	
Pigs Sold	÷	1,116 pigs sold	
		$6.34 / pig sold	

OTHER EQUATIONS:

1. Percent Mortality = $\frac{\text{Pigs Died}}{\text{Pigs Purchased}}$

2. Average Feed Conversion Ratio (FCR) =

   (g = grower)
   (f = feeder)

   $$\frac{(FCR^g \times \text{Wt. Gain}^g) + (FCR^f \times \text{Wt. Gain}^f)}{\text{Total Weight Gain/pig}}$$

3. Average Daily Gain (ADG) = $\frac{\text{Total Weight Gain/pig}}{\text{Days on Feed}}$

4. Feed Intake/pig = Total Weight Gain/pig X FCR avg.

5. Potential Throughput = Pig Places X Turnover

6. Percent Utilization of Barn = $\frac{\text{Average Inventory}}{\text{Pig Places}}$

7. Break-Even Price (¢/kg) = $\frac{\text{Total Cost of Production/pig sold}}{0.79}$

   ($/lb) = $\frac{\text{Total Cost of Production/pig sold}}{0.79 \times 220.46}$

FOR MORE INFORMATION SEE YOUR LOCAL MANITOBA AGRICULTURE OFFICE.

Budget
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Barn Floorplan
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